	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	22	monolith same enzyme	USPAT	2002/10/15 11:19
2	BRS	L2	415	plug same enzyme	USPAT	2002/10/15 11:20
3	BRS	L3	74061	210/$.ccls.	USPAT	2002/10/15 11:20
4	BRS	L4	17	2 and 3	USPAT	2002/10/15 11:22
5	BRS	L5	3380	monolith	USPAT	2002/10/15 11:22
6	BRS	L6	1879	210/656-659.ccls.	USPAT	2002/10/15 11:22
7	BRS	L7	1643	210/198.2.ccls.	USPAT	2002/10/15 11:22
8	BRS	L8	730	210/635.ccls.	USPAT	2002/10/15 11:22
9	BRS	L9	2499	6 or 7 or 8	USPAT	2002/10/15 11:23
10	BRS	L10	31	5 and 9	USPAT	2002/10/15 11:29
11	BRS	L11	105679	enzyme	USPAT	2002/10/15 11:29
12	BRS	L12	23	10 and 11	USPAT	2002/10/15 11:37
13	BRS	L13	223817	plug	USPAT	2002/10/15 11:38
14	BRS	L14	353	9 and 13	USPAT	2002/10/15 11:38
15	BRS	L15	66	11 and 14	USPAT	2002/10/15 11:38

	Comments	Error Definition	Errors
1			0
2			0
3			0
4			0
5			0
6			0
7			0
8			0
9			0
10			0
11			0
12			0
13			0
14			0
15			0

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	22	monolith same enzyme	USPAT	2002/10/15 11:19
2	BRS	L2	415	plug same enzyme	USPAT	2002/10/15 11:20
3	BRS	L3	74061	210/$.ccls.	USPAT	2002/10/15 11:20
4	BRS	L4	17	2 and 3	USPAT	2002/10/15 11:22
5	BRS	L5	3380	monolith	USPAT	2002/10/15 11:22
6	BRS	L6	1879	210/656-659.ccls.	USPAT	2002/10/15 11:22
7	BRS	L7	1643	210/198.2.ccls.	USPAT	2002/10/15 11:22
8	BRS	L8	730	210/635.ccls.	USPAT	2002/10/15 11:22
9	BRS	L9	2499	6 or 7 or 8	USPAT	2002/10/15 11:23
10	BRS	L10	31	5 and 9	USPAT	2002/10/15 11:29
11	BRS	L11	105679	enzyme	USPAT	2002/10/15 11:29
12	BRS	L12	23	10 and 11	USPAT	2002/10/15 11:37
13	BRS	L13	223817	plug	USPAT	2002/10/15 11:38
14	BRS	L14	353	9 and 13	USPAT	2002/10/15 11:38
15	BRS	L15	66	11 and 14	USPAT	2002/10/15 11:38

	Comments	Error Definition	Errors
1			0
2			0
3			0
4			0
5			0
6			0
7			0
8			0
9			0
10			0
11			0
12			0
13			0
14			0
15			0

L Number	Hits	Search Text	DB	Time stamp
1	22	monolith same enzyme	USPAT	2002/10/15 11:19
2	415	plug same enzyme	USPAT	2002/10/15 11:20
3	74061	210/$.ccls.	USPAT	2002/10/15 11:20
4	17	(plug same enzyme) and 210/$.ccls.	USPAT	2002/10/15 11:22
5	3380	monolith	USPAT	2002/10/15 11:22
6	1879	210/656-659.ccls.	USPAT	2002/10/15 11:22
7	1643	210/198.2.ccls.	USPAT	2002/10/15 11:22
8	730	210/635.ccls.	USPAT	2002/10/15 11:22
9	2499	210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.	USPAT	2002/10/15 11:23
10	31	monolith and (210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.)	USPAT	2002/10/15 11:29
11	105679	enzyme	USPAT	2002/10/15 11:29
12	23	(monolith and (210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.)) and enzyme	USPAT	2002/10/15 11:37
13	223817	plug	USPAT	2002/10/15 11:38
14	353	(210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.) and plug	USPAT	2002/10/15 11:38
15	66	enzyme and ((210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.) and plug)	USPAT	2002/10/15 11:38

L Number	Hits	Search Text	DB	Time stamp
1	22	monolith same enzyme	USPAT	2002/10/15 11:19
2	415	plug same enzyme	USPAT	2002/10/15 11:20
3	74061	210/$.ccls.	USPAT	2002/10/15 11:20
4	17	(plug same enzyme) and 210/$.ccls.	USPAT	2002/10/15 11:22
5	3380	monolith	USPAT	2002/10/15 11:22
6	1879	210/656-659.ccls.	USPAT	2002/10/15 11:22
7	1643	210/198.2.ccls.	USPAT	2002/10/15 11:22
8	730	210/635.ccls.	USPAT	2002/10/15 11:22
9	2499	210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.	USPAT	2002/10/15 11:23
10	31	monolith and (210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.)	USPAT	2002/10/15 11:29
11	105679	enzyme	USPAT	2002/10/15 11:29
12	23	(monolith and (210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.)) and enzyme	USPAT	2002/10/15 11:37
13	223817	plug	USPAT	2002/10/15 11:38
14	353	(210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.) and plug	USPAT	2002/10/15 11:38
15	66	enzyme and ((210/656-659.ccls. or 210/198.2.ccls. or 210/635.ccls.) and plug)	USPAT	2002/10/15 11:38

US-PAT-NO: 5723601
DOCUMENT-IDENTIFIER: US 5723601 A

TITLE: Super porous polysaccharide gels

DATE-ISSUED: March 3, 1998

US-CL-CURRENT: 536/103; **210/635** ; 210/649 ; 536/112 ; 536/114 ; 536/123.1 ; 536/124 ; 73/19.02

APPL-NO: 08/ 302839

DATE FILED: September 16, 1994

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
SE	9200827	March 18, 1992

PCT-DATA:

APPL-NO:	PCT/SE93/00226
DATE-FILED:	March 16, 1993
PUB-NO:	WO93/19115
PUB-DATE:	Sep 30, 1993
371-DATE:	Sep 16, 1994
102(E)-DATE:	Sep 16, 1994

---------- KWIC ---------

Brief Summary Text - BSTX:

The new polysaccharide gels may be produced in various shapes, for instance more or less regular beads like spheres, membranes, etc, and can be used as a base matrix for the manufacture of chromatographic media, and as a carrier matrix in general for various biomolecules like cells, **enzymes,** antibodies etc.

Brief Summary Text - BSTX:

Only short distances have to be covered by diffusion in the

new materials and
the particles will therefore, in spite of a much larger particle size, be as
effective as a prior art particle, and still giving rise to a much lower
pressure drop over the gel bed. The invention accordingly discloses a solution
to the problem of how to make polysaccharide gels, useful also in High
Performance Liquid Chromatography (HPLC). Another advantage exhibited by the
new materials is their use in the separation of cells, chromosomes and other
macromolecules which are too large to have access to the pores normally found
in polysaccharide gels. A further advantage is that the new materials can be
used in electrophoresis, including capillary electrophoresis, and as a carrier
for catalytically active cells and **enzymes**. The flow in macropores, which has
been found to be advantageous in chromatographic separation, enhances the mass
transport of substrates and products, thereby improving the catalytic
efficiency.

Detailed Description Text - DETX:

An emulsion according to Example 1 was poured into a thermostatted (60.degree.
C.) column for chromatography (a glass tube with a diameter of 1.6 and a height
of 20 cm), sealed in one end with a silicone **plug**. The tube was cooled to room
temperature and an agarose gel was formed. The cylindrically formed gel **plug**
was pressed out of the tube and the two end surfaces were cut perpendicular to
the a cylinder axis. The gel **plug** was then inserted into the chromatographic
tube which was connected to a peristaltic pump of the type used in
chromatography. The organic phase containing the detergent was removed by
washing the gel with water, 50% ethanol and finally with another portion of

water.

Detailed Description Text - DETX:

Superporous NAD-agarose particles prepared according to Example 10 were packed in a chromatography column (1.6.times.5 cm). The NAD-agarose particles had a diameter of 0.4 mm and a static binding capacity for lactate dehydrogenase of 10 mg/g gel in the presence of 25 mM oxalate. Another column with the same dimensions was packed with prior art agarose particles (Example 13) with the same concentration of NAD-analogs (the substitution was carried out as in Example 10. Both columns had the same particle diameter and the same binding capacity. The columns were compared with respect to their ability to adsorb lactate dehydrogenase from a raw extract, in the presence of 25 mM sodium oxalate. 50 ml of the raw extract was pumped through each of the columns with a speed of 3 or 9.9 ml/min. The outflow from the columns was analyzed with regard to protein concentration and lactate dehydrogenase activity. The columns were then washed and the adsorbed **enzyme** eluted with 1 mM NADH. The following results were obtained:

Detailed Description Paragraph Table - DETL:

Adsorbed **enzyme**				Eluted **enzyme**	
Flow (% of applied)	(% of applied)		ml/min	normal	superporous
normal	superporous				
3.0	90	100	100	90	
9.9	50	90	50	90	

Current US Cross Reference Classification - CCXR:

210/635